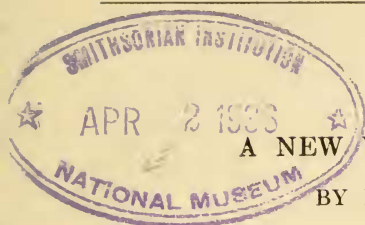


PROCEEDINGS
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A NEW WEASEL FROM PERU.¹

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Study of the South American weasels of the genus *Mustela* has revealed the existence there of one heretofore undescribed geographic race. This long-tailed weasel, of the lower, eastern slopes of the Andes, together with other kinds described from the Andes, belongs to the species *Mustela frenata*. The five specimens examined of the new race, kindly made available for study by Dr. W. H. Osgood and Mr. C. C. Sanborn, were taken by Mr. Edmund Heller for the Field Museum of Natural History, and it is in recognition of the latter's contributions to mammalogy that the name *helleri* is proposed for the new form.

Color terminology, unless otherwise indicated, is that of Ridgway: Color Standards and Color Nomenclature, 1912. Linear measurements are in millimeters and weights are in grams.

***Mustela frenata helleri*, new subspecies.**

Type.—Male, adult, skull and skin; no. 24133, Field Mus. Nat. Hist.; 3000 feet, Hacienda San Antonio, Rio Chinchao, Peru; August 2, 1922; collected by Edmund Heller; original no. 6589.

Range.—Altitudinally 3000 feet (type locality) to 6700 feet (Ambo), Tropical and Subtropical zones of eastern Peru.

Diagnosis.—Size: Medium (see measurements). Color: Rarely few white hairs anterior to each ear and sometimes posterior one-fifth of each upper lip white; top of head, posteriorly to slightly behind ears, black, grading insensibly into color of upperparts of body; dark spots at angles of mouth absent; tip of tail black; remainder of upperparts near (*n*) argus brown and tone 3 of carbon brown, pl. 342 of Oberthür and Dauthenay (*Répertoire de Couleurs*, 1905); chin whitish; remainder of underparts warm buff; color of underparts extends distally on posterior sides of fore limbs

¹Contribution from the Museum of Vertebrate Zoology, University of California.

to wrists but not reaching foot soles, and on hind limbs to slightly below knees; least width of color of underparts 24 per cent of greatest width of color of upperparts in each of two males and 19 to 30 per cent in three females. Black tip of tail longer than hind foot and averaging 40 (39-42) per cent of length of tail. Skull and teeth: Male: See measurements; weight, 4.5 (4.2-4.8) grams; basilar length, 44.6 (44.0-45.3); zygomatic breadth more than distance between condylar foramen and M^1 or than between anterior palatine foramen and anterior margin of tympanic bulla; mastoid breadth more or less than postpalatal length; postorbital breadth more than combined length of upper premolars and greater than width of basioccipital, measured from medial margin of one foramen lacerum posterior to its opposite; interorbital breadth more than distance between foramen opticum and anterior margin of tympanic bulla; breadth of rostrum more or less than length of tympanic bulla; least width of palate more than inside length of P^4 ; anterior margin of tympanic bulla as far posterior to foramen ovale as combined width of 4 (including I^3) upper incisors; height of tympanic bulla less than distance from its anterior margin to foramen ovale; length of tympanic bulla more than length of lower molar and premolar tooth-row and less than length of rostrum; anterior margin of masseteric fossa posterior to M_2 by length of that tooth. Female (one from Ambo and one from Huanuco): See measurements; weight, 1.7 (1.5-1.9) grams; basilar length, 36.5 (35.3-38.1); zygomatic breadth less than distance between condylar foramen and M^1 or than distance between anterior palatine foramen and anterior margin of tympanic bulla; postorbital breadth more than combined alveolar length of upper premolars or than width of basioccipital measured from medial margin of one foramen lacerum posterior to its opposite; least width of palate more or less than outside length of P^4 ; tympanic bulla as far posterior to foramen ovale as combined width of at least $5\frac{1}{2}$ upper incisors; height of tympanic bulla less than distance from its anterior margin to foramen ovale; length of tympanic bulla more than length of lower molar and premolar tooth-row and less than length of rostrum.

The skulls of females average 62 per cent lighter than those of the males.

Compared with the skull of male *macrura*, that of *helleri* has a greater mastoid breadth and notably larger teeth. The skull is deeper and averages heavier throughout. *M. f. helleri* is a much darker colored animal than *macrura*.

Remarks.—This subspecies is insufficiently known, especially as to range. Doubtless it occupies a considerable range in the Tropical Zone along the eastern base of the Andes. The three females, two from Ambo and one from Huanuco, almost certainly are not typical. They come from a much higher altitude than do the two males, where the climate is said to be much more arid than at the type locality. The difference in weight between the skulls of the two sexes, 62 per cent, is greater than in any other subspecies of South American weasel and suggests that the females may even belong to a subspecies distinct from that represented by the males.

The type specimen has a broad skull with major proportions strikingly like those of *Mustela stolzmanni*. Possibly the similar climatic conditions

under which the two live have left their impress in similar fashion on this part of each of the two forms. The teeth, tympanic bullae, and certain other parts of the skull are, however, so differently proportioned as to show that the skulls pertain to distinct species. The referred male from 3500 feet on the Rio Chinchao has a much longer skull than the type specimen and the relative proportions of breadth and depth of the two skulls vary widely. Judging from large series of weasels examined from localities outside the range of *helleri*, the two skulls represent, within the species *Mustela frenata*, almost the maximum of individual variation occurring in one subspecies.

Specimens examined.—Total number, 5, all from Peru, as follows: 3000 ft., Hacienda San Antonio, Rio Chinchao, 1; 3500 ft., Hacienda Buena Vista, Rio Chinchao, 1; Huanuco, 1; Ambo, 2.

MEASUREMENTS.

	♂ <i>ad. type.</i>	♂ <i>ad. no. 24132, Rio Chinchao, Peru.</i>	♀ <i>ad. 24136, Huanuco, Peru.</i>	♀ <i>ad. 24135, Ambo, Peru.</i>	♀ <i>ad. 24134, Ambo, Peru.</i>	
Total length.....	382	418	303	328	
Length of tail.....	152	164	103	118	
Length of hindfoot.....	52	48	39	39	
Basilar length.....	44.0	45.3	35.3	36.1	38.1	
Length of upper tooth-rows.....	16.4	17.0	13.0	13.8	14.0	
Breadth of rostrum across lacrimal processes.....	14.5	13.9	10.5	10.9	10.6	
Interorbital breadth.....	12.5	11.7	8.9	9.0	9.1	
Orbitonasal length ¹	14.9	15.5	12.1	12.4	12.6	
Mastoid breadth.....	24.5	24.5	17.9	18.8	19.8	
Zygomatic breadth.....	29.1	29.0	20.8	22.4	22.2	
Tympanic bullae	{ length..... { breadth..... { depth.....	14.4	14.4	11.8	11.8	12.0
		6.5	6.5	4.7	5.0	5.4
		2.4	2.4	2.0	1.9	2.0
Depth of skull at anterior border of basioccipital exclusive of sagittal crest.....	16.0	16.0	11.8	12.6	13.9	
Depth of skull at posterior borders of upper molars.....	14.0	13.7	10.0	10.5	11.0	

¹From posterior margin of postorbital process of frontal to superior border of anterior nares.

